



MCDOT NEWS

News from the Montgomery County Department of Transportation, Division of Highway Services

FOREST GLEN CONCRETE INFRASTRUCTURE STUDY

Surface Scaling of Concrete Sidewalks and Curbs Being Reviewed

INTRODUCTION

This newsletter is to inform you of Montgomery County's review of the premature surface scaling of concrete sidewalks, curbs and driveway aprons installed in the last five years throughout the Forest Glen neighborhood. MCDOT is keenly aware of this issue and a comprehensive study is well underway to determine the cause. Despite the unattractive appearance of the concrete, preliminary tests have shown that the concrete is sound and the deterioration affects only the top 1/8 inch. This issue is not limited to Forest Estates – it is appearing throughout Montgomery County and elsewhere in the state of Maryland. The project contractor that installed the concrete in Forest Glen Estates is working closely with MCDOT to address any work that does not meet contract specifications, terms and conditions.



Before and after curb installation

NOTICE/DISCOVERY

During the spring of 2013, MCDOT noticed that the earliest installed concrete in Forest Glen Estates was showing signs of surface deterioration – some worse than others. This surface deterioration included delamination, scaling, surface chipping and surface spalling.

Troubled by these observations, MCDOT inspected all of the installed concrete and issued a notice to its contractor to remedy the conditions found within Forest Glen. Despite the fact that the cause of the surface scaling

has not yet been determined, the contractor has been working cooperatively with MCDOT in a sincere desire to determine the cause and to address issues concerning materials and workmanship.

MCDOT's agreement with the contractor included warranty provisions, which covered some of the areas where concrete issues were found. However, for the work that was completed first, the warranty had expired. MCDOT and the County's legal staff are reviewing all options concerning the contractor's obligations to redress its work.

REGIONAL ISSUE

MCDOT's investigation into the concrete scaling issue in Forest Glen Estates led to the realization that concrete of the same design in other parts of the County as well as other jurisdictions throughout the state of Maryland and the greater Washington, D.C. area were reporting similar problems.

REVIEW AND ANALYSIS

MCDOT is working closely with its contractors, as well as construction industry leaders, to better understand what precipitated the deterioration. MCDOT has begun testing concrete samples using a nationally recognized and accredited materials testing firm to help isolate the cause of the premature surface scaling. Thus far, detailed tests have shown that only the top 1/8-inch of the concrete is affected. This is good news, as it means the concrete itself remains solid and durable, according to the test reports. Nevertheless, MCDOT continues to address this issue as many of the affected areas will ultimately require remedial action. Additional testing is underway to examine concrete in all phases of construction.

WHAT WE KNOW SO FAR

1. Concrete used for sidewalks, curbs and driveway aprons is

showing early signs of surface scaling in some areas.

2. The overall concrete remains sound and durable, according to detailed laboratory testing completed so far.
3. The concrete mix composition used in Forest Glen was approved by MCDOT and the Maryland State Highway Administration, tested during production and placement and found to meet all relevant contract specifications.
4. The concrete mix itself is being carefully studied and examined.
5. The impacts on the concrete of environmental conditions, such as the freeze-thaw cycle, sub-freezing temperatures and exposure to salt, are being studied.
6. Concrete finishing practices, as well as concrete batching practices, are being carefully reviewed.

WHAT'S NEXT?

MCDOT has assembled a team to review all the project data, examine similar regional impacts and data, and carefully review the situation in Forest Glen Estates to identify the cause of the concrete deterioration. Additional testing has been ordered and those results will be factored into the review. Industry leaders will assist with this evaluation. Once the evaluation is complete, the affected areas will be fixed.

THEN WHAT?

Based on the study recommendations, MCDOT will develop a comprehensive remediation plan that will be outlined in a future Newsletter mailed to everyone in Forest Glen Estates.

TIMEFRAME

MCDOT estimates that remedial action could occur within the next 12 to 18 months.

WHAT NEEDS TO BE DONE IN THE MEANTIME?

The scaling, although problematic, is mostly an aesthetic rather

than a structural issue. The concrete remains sound below the surface so no intermediate measures are necessary.

MY PRIVATE DRIVEWAY WAS REBUILT BY THE SAME CONTRACTOR AND IS SCALING TOO. WHAT'S IN STORE FOR ME? AM I COVERED?

All work installed under the terms and conditions of the contract and inspected by Montgomery County personnel will be addressed in the same way regardless of who paid for the work.

BACKGROUND

The Montgomery County Department of Transportation (MCDOT) conducts a biennial condition survey of all 5,200 lane miles of county roads to calculate a Pavement Condition Index (PCI). The PCI is the basis for allocating MCDOT's road rehabilitation resources.

One of the PCI surveys showed that the Forest Glen neighborhood needed complete road rehabilitation, which included new pavement, curbs, sidewalks and driveway aprons. Given the size of the Forest Glen community, the project was completed in three phases over three calendar years, beginning in August 2010 and ending in August 2012.



Sidewalk before Renew Forest Glen Project

MORE INFORMATION

For further information, contact the Division of Highway Services at mcdot.highway@montgomerycountymd.gov.

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KEEPING MONTGOMERY MOVING

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NOTICE OF FOREST GLEN CONCRETE INFRASTRUCTURE STUDY

IMPORTANT MCDOT CONTACTS

DHS Email: mcdot.highway@montgomerycountymd.gov

Should your questions be of a more general nature please contact the MC311 Call Center by dialing 311 or 240-777-0311.

DHS Website: www.montgomerycountymd.gov/DOT-Highway/

On the Highway Services Map, click on the **Silver Spring** Service Area, where you will find additional roadway maintenance projects scheduled in your area.

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Map of Forest Glen Rehabilitation Project Limits

